

IRRIGATION ARRANGEMENTS IN BUNCOMBE COUNTY, NORTH CAROLINA

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IRRIGATION ARRANGEMENTS IN
BUNCOMBE COUNTY, NORTH CAROLINA

A Report of an Irrigation Survey in Buncombe
County, Conducted in the Summer of 1962

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and
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Note: Water Resource Papers 1-12 inclusive may be purchased as a set for \$1.00.

Introduction

This is one of a group of reports of irrigation surveys made in the summer of 1962 covering eleven North Carolina counties. The surveys are part of a research project concerning arrangements by water users in selected areas of North Carolina to secure water sources. Conducting the surveys was James E. Martin, Jr., currently a second-year law student at the University of North Carolina, under the supervision of Milton S. Heath, Jr.*

Briefly, the purpose of the irrigation surveys is to examine and analyze the following factors:

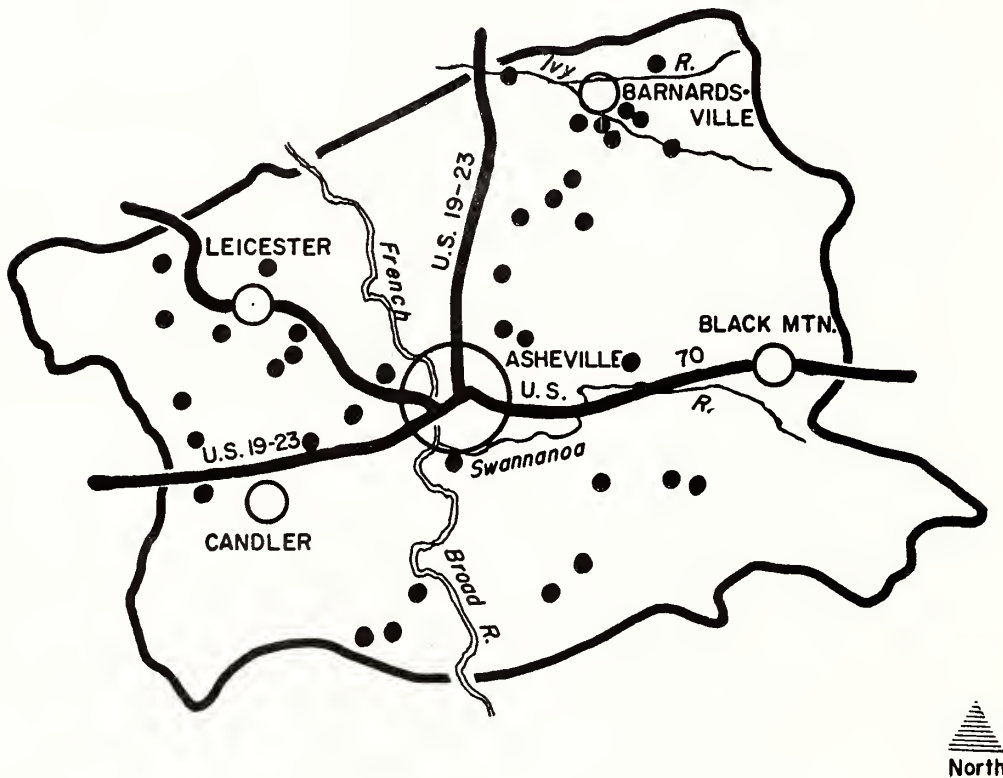
- .The nature and magnitude of farm irrigation in selected areas.
- .The types of crops irrigated.
- .The sources of water used.
- .The legal arrangements made by the irrigators to secure their sources of water, including purchase of land or water rights, agreements among irrigators and other water users concerning water use, permits required, etc.
- .Any disputes that may have arisen over sources of water affecting these irrigators, and the outcome of the disputes.

With this and other information developed through the research project, it is hoped that an accurate evaluation can be made of the operation of the existing structure of laws and political institutions affecting water use, of its weaknesses and strengths, and of its impact on water resource development.

The procedures followed in this survey are described in detail by Water Resource Paper No. 2. Briefly, the known irrigators were identified with the assistance of county agents and Soil Conservation Service personnel, and then were personally interviewed. A prepared questionnaire was used as a point of departure for the interviews.

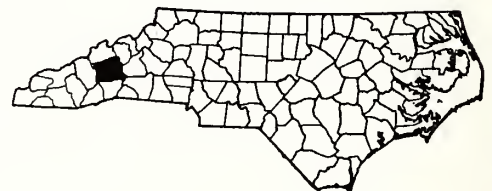
*Water Resource Paper No. 1 contains a description of the over-all research project. Water Resource Paper No. 2 summarizes the 1962 irrigation surveys and reviews the procedures followed on the surveys.

IRRIGATION IN BUNCOMBE COUNTY



Key:

- REPRESENTS AN ACTIVE IRRIGATOR WHO WAS CONTACTED IN THIS SURVEY DURING THE SUMMER OF 1962.



General Review of Irrigation
in Buncombe County

Due to the mountainous nature of Buncombe County farming is limited generally to small farms where the primary crops include tobacco and truck crops. The farms in Buncombe are small and usually farmed by their owners, whereas in neighboring Henderson County farming operations are often large and often on rented lands. Tobacco is the largest irrigation operation in Buncombe, while no tobacco irrigators were found in Henderson.

The farms are scattered throughout Buncombe County down through the numerous valleys. Again, in contrast to Henderson County, there are few areas which can be described as broad or extensive bottom lands.

The Barnardsville area includes a small fertile valley where there is extensive tobacco farming; however the allotments are small and are largely farmed by their owners. There are approximately twelve irrigators in this valley area, most of them using water from Dillingham Creek. The supply of water has been sufficient in the past. However, few of these irrigation systems were in operation in the droughts of the early fifties.

Of interest in the county is also the Biltmore Dairy Farm, the county's largest irrigator. On this 5,250 acre farm, during extreme droughts 110 acres of alfalfa and orchard grass have been irrigated both from the two available ponds and the French Broad River. The necessity for irrigation during relatively short dry periods has been reduced by increased production of silage, which has proven less expensive.

Summarized Results of Survey

1. Extent of coverage

Suggested list of irrigators (SCS Unit Conservationist and County Extension Chairman)--31

Farms reporting irrigation in 1959 U. S. Census of Agriculture--50

Persons contacted--41

Active irrigators contacted--34

Estimated number of irrigators in Buncombe County (authors' estimate)--45

2. Time required for conduct of survey in Buncombe County

4 days for interviewing irrigators and others

3. Water sources

Ponds--6

Continuous Flow Ponds--6

Streams--31

Wells--1

Combination of Sources (ponds, streams, wells)--4

Note: The information concerning water sources, including the classification of types of ponds, was derived from the irrigators themselves, not from personal inspection by the authors. An explanation of the terminology used here--e.g., "continuous flow ponds"--will be found in U.N.C. Water Resource Paper No. 2.

4. Types of crops

Tobacco (23 farms)

Largest farm--8.0 acres

Smallest farm--.5 acres

Average farm--1.61 acres

Truck crops (7 farms)

Largest farm--20 acres

Smallest farm--.25 acres

Average farm--7.89 acres

Pasture (11 farms)

Largest farm--(Biltmore, 110 acres/other 23)

Smallest farm--4 acres

Average farm--21.8/13.0

It should be noted that the figures given above reflect the acreage irrigated and not necessarily the actual acreage of the respective farm.

5. Water usage

There are no reliable data available and no mechanical measuring devices are in use. (See Water Resource Paper No. 2 for further comment.)

6. Expansion

32 irrigators have no specific expansion plans. One plans to increase his irrigation from Newfound Creek when funds are available. Another plans to build a new pond and add sprinklers and pipe when funds are available.

7. Disputes over water, etc.

None reported

8. Purchase of water rights or agreements concerning legislation

None reported

9. Acquisition of riparian lands, easements, etc.

None reported

10. Recent irrigation trends

Recent droughts ('61/'62) have apparently affected irrigation practices to the extent that 26 irrigators have irrigated in 1961 or 1962 with a clear majority having irrigated at least once in 1962.

Acknowledgments

SCS Unit Conservationist Ormand C. Williams and Buncombe County Extension Chairman W. R. Palmer gave us invaluable help in identifying and locating irrigators. We are very grateful to them, and to State Conservationist Richard M. Dailey and Howard Ellis of the State College Department of Engineering Extension for their usual generous co-operation.

The map at page 3 was prepared by Charles Nakamura of the Institute of Government.

